



## Role Of Diet & Dietetics Principle As Mentioned In Ayurveda In Prevention Of Lifestyle Disorders

Rahul Jain<sup>1</sup>, Brijendra Kr. Srivastava<sup>2</sup>

1. Junior Resident-2, deptt. of Samhita & Sanskrit, Faculty of Ayurveda, IMS, BHU

2. Junior Resident-3, deptt. of Samhita & Sanskrit, Faculty of Ayurveda, IMS, BHU

Corresponding Author- Dr. Rahul Jain, JR-2, deptt. Of Samhita & Sanskrit, faculty of Ayurveda, IMS, BHU, Varanasi, UP, 221005, email id- dr.\_rahul@rediffmail.com

### Abstract –

*Ayurveda is the most ancient science of life; health and cure, practiced in India for thousands of years based on its own unique fundamental principles such as promotion of health, prevention of disease, promotion of longevity etc. Ayurvedic classics give special emphasis on three important values which have been considered as the important conducive factors for maintenance of life and health. This important triune consists of Ahara (food), Nidra (Sleep) and Brahmacharya (Good conduct). These three have been considered as Upastambha or the basis of life and health. Among traya-upastambha, Ahara (diet) has been considered as the first one which shows its importance. Intake of wholesome and unwholesome diet is responsible for prevention and production of various diseases respectively including life style disorders. Acarya Charaka has clearly stated, that a daily diet should be (of such quality), which not only helps to maintain present well-being but serves as a prophylactic against coming diseases. This is a very important aspect of preventive medicine as mentioned in Ayurveda classics. Lifestyle disorders are a big problem for our society today. Such diseases mainly result from life style related factors such as unhealthy diet, bad food habits, lack of physical activity etc. In this article, we are mainly concerned with the various regimen of diet and dietetics principle as mentioned in the Ayurveda for the prevention of lifestyle disorders.*

**Key words –** Diet, health, lifestyle disorders, Ayurveda

### Introduction-

Ayurveda is the most ancient science of life<sup>1</sup>, health and cure, practiced in India for thousands of years based on its own unique fundamental principles such as promotion of health, prevention of diseases, promotion of longevity etc. The main aim of Ayurveda is “Swasthasya Swasthya rakshanam” which means to maintain the health of the healthy person and “Aturasya vikara prashamanam cha” means to cure the diseases of the diseased person<sup>2</sup>. Ahara(diet), nidra(Rest-sleep) and brahmacharya(celebrity) are trayahupastambhah<sup>3</sup> (like as pillars which support a building) in Ayurveda, which support the life. Among traya-upastambha, Ahara (diet) has been considered as the first one which shows its importance. Life style disorders are due to Poor life-style which includes, poor diet, lack of exercise, smoking, excess alcohol, poor sleep, stress due to heavy workload. Several factors are resulting in the increasing burden of lifestyle disease which includes longer average life span, rising income, increasing tobacco consumption, decreasing physical activity and increased consumption of unhealthy food. In India, rapid urbanization and globalization mainly contribute towards increased number of people suffering from life-style disorders<sup>4</sup>. The urban people are having less physically active life-style, more exposure to products and technologies that could be unhealthy for them. Lifestyle disorder also known as diseases of civilization, as the name suggests, result from the way we live our lives. Modern science through improved sanitation, vaccination and antibiotics, and medical attention has eliminated the threat of death from most infectious diseases. So, now a day the death from lifestyle diseases like heart disease and cancer are the primary causes of death. Everybody naturally has to die of something, but lifestyle diseases take people before their time. Too many people are dying relatively young from heart diseases, cancer and other lifestyle diseases in modern times. In

India the situation is quiet alarming. The disease profile is changing rapidly. The World Health Organization (WHO) has identified India as one of the nations that is going to have most of the lifestyle disorders in the near future. Nowadays, not only are lifestyle disorders becoming more common, but they are also affecting younger populations. Hence, the population at risk shifts from 40+ to may be 30+ or even younger. According to WHO report (2002), cardiovascular diseases will be the largest cause of death and disability in India by 2020. It is estimated that the overall prevalence of diabetes, hypertension, ischemic heart diseases (IHD) and stroke is 62.47, 159.46, 37.0 and 1.54 respectively per 1000 population of India. There are an estimated 25 lakh cancer cases in India. A study conducted jointly by the AIIMS and MAX Hospital shows the incidence of hypertension, obesity and heart disease is increasing at an alarming rate, especially in the young, urban population.

#### MAJOR LIFESTYLE ORIENTED DISEASE <sup>5</sup>

NAME OF DISEASE	COMMENTS
Heart Disease	Any of several abnormalities that affect the heart muscle or the blood vessels of the heart. Heart disease to be single greatest killer in India by 2015 (WHO). One third of the heart attacks worldwide may be attributable to diets high in fats, salts, eggs and meats according to groundbreaking new study published in the journal Circulation
Obesity/Type II Diabetes:	Unhealthy eating habits (excess intake of sugar and its products, saturated and trans fats etc.), super sizing meals and reduced physical exercise all translate to obesity. Obesity becomes the cause of other health problems such as Type II Diabetes which is the non insulin dependent form and generally develops in adults.
Stress/Hypertension	Hypertension results from a variety of reasons like stress, obesity, genetic factors, overuse of the salts in the diet and ageing.
Arteriosclerosis	A generic term for several diseases in which the arterial wall becomes thicken and loses elasticity. Plaques (atheromas) deposited in the wall of arteries are major cause of heart disease, chest pain, heart attacks and other disorder of circulation. It is linked to overweight, high blood pressure and diabetes.

Cancer	It is the disease characterized by uncontrolled, abnormal growth of cells. Cancer is definitely considered the number one disease of civilization .Some of the foods, that people usually prepare during mealtimes are said to contain some amount of carcinogens (cancer causing agents). The foods containing carcinogens are Processed meat (containing nitrate which is carcinogen), White flour cookies (containing potassium bromide), Chips/Crackers (rich in trans fat and are also said to contain acryl amide, which is a carcinogen). French fries (contain acryl amide), Coca-cola/Pepsi/Diet coke/Diet Pepsi (contain high level of 4-Methylimidazole, a known animal carcinogen), Hot dogs (containing nitrates) etc.
Chronic Liver Disease (Cirrhosis)	The liver cleans the blood, produces the digestive liquid bile and store energy in the, form of glycogen sugar. If not cared for properly especially eating foods detrimental to liver, one can develop liver complications like Cirrhosis etc. Although alcohol is the main cause of preventative liver disease, several foods also contributes to the unhealthy liver like sugary deserts, salty dishes and foods high in saturated fats(Contribute to non-alcoholic fatty liver disease).
Alzheimer's Disease	It is a form of brain disease whose exact Cause is not known, but a real breakdown of the cells of the brain does occur. A Research program at the Rush Institute for Healthy Ageing finds that, the large intake of fatty meats, full fat dairy products like butter and milk and vegetable shortening, which is often found in crackers and cookies may results in the development and progression of Alzheimer’s Disease.

## DIETETICS PRINCIPLES WHICH SHOULD BE FOLLOWED FOR THE PREVENTION OF LIFESTYLE DISORDERS

### 1. PRINCIPLE OF BALANCED DIET-

According to Ayurveda, the diet which nourishes both the mental and physical built is called balanced diet.

### a) Use of Sadarasa yukta Ahara

Caraka while describing the types of Rasa, said that the appropriate use of all the six rasas maintains the equilibrium of (Dosa, Dhatu and Mala) body.

### B) Ahara matra

Acarya Caraka defines Matra of Ahara as<sup>6</sup>:

The amount of food which without disturbing the equilibrium (of DhÁtus and DoÒas of the body) gets digested as well as metabolized in proper time is to be regarded as the proper quantity. In the same chapter Acarya Caraka specifies the quantity of food according to its quality. If the food article is heavy (guru), only three-fourth or half of the stomach capacity is to be filled up. Even in the case of light food (laghu) articles excessive intake is not conducive to the maintenance of the power of digestion and metabolism. In this regard Caraka further says in Vimanasthana Chapter 2, that for the purpose of taking food the stomach capacity should be divided into three parts, one part of it should be filled up with solid food, the second part with liquids and the third part should left for vata, pitta and kapha. Emphasizing upon the balanced diet Maharshi Caraka says that a man votary of wholesome diets and controlled habits survives for thirty six thousand nights (Hundred years) in a disease free state, blessed by noble men.

### 2. CONSIDERATION OF ASTA- AHARAVIDHIVISHESHAYATANA<sup>7</sup>-

According to Acarya Caraka, the eight factors which determines the utility of the various types of food are:

#### i) Prakriti

It indicates the nature of substances i.e. inherent attributes (heaviness etc.) of diets and drugs, such as maÒa (black gram) is heavy and mudga is light.

#### ii) Karan (Processing of Food)

Processing results in the transformation of attributes. Transformation of the attributes is effected by dilution, application of heat, cleansing, churning, storing, maturing, flavoring, impregnation, preservation, container etc.

#### iii) Samyoga

It is the combination of two or more substances. This results is the manifestation of specific attributes which cannot be manifested by individual substances e.g. combination of honey and ghee etc.

#### iv) Rasi

Rasi is the quantum of total (sarvagraha) or individual (parigraha) substances which determines the results of their administration in proper and improper dosage. The quantity of food in its entirety is "Sarvagraha" and the quantity of each of its ingredients is "Parigraha"

#### v) Desha

Desha relates to the habitat. It determines attributes due to procreation (growth) or movement of substances in particular locality or their acclimatization to that region.

#### vi) Kala

Kala stands for both the time in the form of day and night and states of individual (viz. condition of health and age). The latter is relevant to the diseases e.g. manifestation of diseases due to kapha during childhood and fever etc. due to dietetics error, whereas the former for the determination of the wholesome to different types of seasons.

#### vii) Upayogasamstha

Upayogasamstha stands for dietetic rules. They are for the most part dependent on the symptoms of digestion.

### **viii) Upayokta**

Upayokta is that who take food. He is in the main responsible for the wholesomeness by the habitual intake of things. These eight factors are associated specially with useful and harmful effects and they are conditioned by one another. One should try to understand them and after understanding, he should resort to useful things alone. Neither due to ignorance nor intentionally one should resort to such food articles or other things (drugs, regimens etc.) as are instantaneously pleasing but harmful in the long term leading to unhappy consequences in the form of lifestyle disorders etc.

### **3. Rules of Taking Ahara (Food)-**

Food taken only two times daily is the ideal for an average person. It should be taken , in the morning between nine and twelve o'clock, and in the evening in between seven and ten. but the students, like the hard worked bulls, may take food, however more than twice, provided they feel hungry. They should not take food within three hours after the last meal nor starve for more than six hours<sup>8</sup>.

There are different rules laid by Acarya Caraka, Susruta<sup>9</sup> and Vagbha<sup>10</sup> regarding the taking of diet. According to Caraka the healthy individuals as well as (some of the) patients should observe the following, even while using such of the food articles as are most wholesome by nature: one should eat only that food in proper quantity which is hot, unctuous and not contradictory in potency and that too, after the digestion of the previous meal. Food should be taken in proper place equipped with all the accessories, without talking and laughing, with concentration of mind and paying due regard to oneself.

#### **1. Usnamasniyata**

One should take warm food. When taken warm, it is delicious; after intake it provokes the factors (enzymes) in the abdomen responsible for digestion; it gets digested quickly and helps in the downward passage of vata (wind) and detachment of kapha. Therefore, one should take warm food.

#### **2. Snigdhamasniyata**

One should take unctuous food; unctuous food is delicious, after intake, it provokes the subdued power of digestion; it gets digested quickly;. it helps in the downward movement of vata (wind) it increases the plumpness of the body, strengthens the sense faculties, promotes strength and brings out the brightness of complexion.

#### **4. Jirne asniyata**

One should take food only when previous meal is digested. If one takes food before the digestion of the previous meal, the digestive product of the previous food, i.e. immature rasa gets mixed up with the product of food taken afterwards, resulting in the provocation of all the doṠas instantaneously. If food is taken after the digestion of the previous food while the doṠas are in their proper places and agni (digestive enzymes) is provoked, there is appetite, the entrances of the channels of circulation are open, eructation is purified, there is unimpaired cardiac function, downward passage of the wind and proper manifestation of the urges for voiding flatus urine and stool then the product of food does not vitiate the dhatus of the body, but on the other hand it promotes longevity in its entirety. So one should take food only after digestion of the previous meal.

#### **5. Viryaavirudhamasniyata**

One should take food having no contradictory potencies. By taking such food one does not get afflicted with such diseases as may arise from the intake of food having mutually contradictory potencies.

#### 6. Istedese, Istarvopkaranam asniyata

One should take food in proper place equipped with all the accessories. By doing so he does not get afflicted with such of the factors as would result in emotional strain which (normally) occurs when one takes his food in improper places without the required accessories.

#### 7. Naatidrutam asniyata

One should not take food too hurriedly; if food is taken too hurriedly it enters into a wrong passage; it gets depressed and it does not enter into the stomach properly. In this situation one can never determine the taste of food articles and detect foreign bodies like hair etc., mixed with them.

#### 8. Naativilambitam asniyata

One should not take food very slowly because this will not give satisfaction to the individual. In this situation he would take more than what is required; the food would become cold and there will be irregularity indigestion.

#### 9. Aжалpan, Ahasan, Tanmanabhunjita

One should not talk or laugh or be unmindful while taking food. One who taking food while talking, laughing or with detracted mind subjects him to the same trouble as the one eating too hurriedly.

#### 10. Atmanamabhisamiksya

One should take food in a prescribed manner; with due regard to his own self. The knowledge of the usefulness or otherwise of food articles is the sine qua non for self-preservation.

### DAILY AND SEASONAL REGIMEN OF AHARA

#### 1. Daily Indicated Ahara

According to Acarya Caraka one should regularly take Sastika rice, Sali rice, Mudga, Saindhava Lavana, Amalaki, Yava, Rain water collected before falling on the ground, Milk, Ghi, Jangala Mamsa (meat of animals dwelling in arid climate) and honey<sup>11</sup>.

A scientific analysis of this above said ingredient of food stuff rightly justifies the entire requirements of the body in a better way than the modern prescription<sup>12</sup>. The Sastika and Sali varieties of paddy are examples of the carbohydrate food. Rakta Sali (red rice) which is classed as glutinous rice is specially recommended. The red covering of rice was known to possess special nutrient properties even the day of Caraka and Susruta.

The green gram (mudga), which represents the protein content of food, is considered the best of all pulses. Masa (black gram) which is known to be more nutritious, was not preferred, because it was comparatively too hard to digest. Though both are rich in protein, light and digestible protein has been preferred to a heavy one.

Amalaka represents the vitamin content of a balanced diet in addition to milk and vegetable.

Yava (barley) again represent the carbohydrates and it is easily digested and is a diuretic. Nutritive values of barley<sup>13</sup> (content in 100g)-

Protein	9.9g	Phosphorous	221mg	Iron	2.5mg
Carbohydrate	77.7g	Vitamin A	10mg	Zink	2.1mg
Fats	1.2g	Thiamine	0.2mg	Fiber(/ 200gm)	13.60gm
Energy	352 kcal	Riboflavin	0.1mg	Selenium(/200gm)	36.40mcg
Calcium	29.0mg	Niacin	4.6mg	Tryptophan(/200gm)	0.12gm

Yava is an efficient food to prevent many life style disorders barley contains varying amount of total tocopherol and tocotrienols and Vit. E content which are antioxidant so can act as balya and rasayana and beneficial in diseases like DM, Cancer, hypertension, obesity<sup>14</sup>. Barley contains lunasin a cancer preventive peptide, so it is beneficial in cancer. And soluble fiber, betaglucan help in prevent of various life style disorder, if used regularly.

Payah (milk) represents an all-round food containing proteins, carbohydrates, fat, minerals vitamins and all that is required for man from infancy to old age. Milk predominately is a satvika food. Sarpi or ghrta represents not merely the fat content but also the intellect building principle. Superiority of ghrta over others fat, both vegetarian and animals, is very beautifully described by Caraka. It is promotive of memory, intelligence, vital fire, semen vital essence. It is curative of vata, pitta, toxicities, insanity, consumption and fever.

The flesh of animals are considered as light and easily digested. Madhu (honey) is most refined glucose in a liquid form.

## 2. Daily Contraindicated Ahara<sup>15</sup>

Acarya Caraka says that one should not regularly take heavy articles such as Vallura (dried meat), dry vegetables, lotus rhizomes, lotus stalk. One should never take the meat of a diseased animal. Moreover one should not regularly take Kurchika (boiled butter milk), KilaÔa (inspissated milk), Meat of pig, cow and buffalo, Fish, Curd, MaÒa, Yavaka.

## 3. Seasonal Consideration of Ahara<sup>16</sup>

RITU (SEASON)	INDICATED AHARA	CONTRAINDICATED AHARA
Hemanta	Unctuous, sour and saltish food, juice of the meat of aquatic animals and marshy animals which are fatty, meat of burrow-dwelling animals and bhrita (a preparation of meat by mincing it) prepared of animals of prasaha type, drink of madira, sidhu and honey, cow's milk, cane juice and its preparation, fat, oil, new rice and hot water.	Food and drink which are light and are liable to vitiate vata, under-feeding and intake of gruel.
Sisira	Same as that of Hemant Ritu	Diet and drinks possessing the qualities such as pungent, bitter, astringent, vata provoking, light and cold.

Vasanta	Food consisting of barley and wheat, meat of sarabha (Wapiti), sasa (rabbit), ena (antelope), lava (common quail) and kapinjala (grey partridge), drink unpolluted sidhu and mardvika types of wine.	Heavy, unctuous, sour and sweet diets.
Grisma	sweet, cold, liquid and unctuous diets and drinks, cold mantha (a type of groat) along with sugar as well as the meat of the animals or birds of arid climate, ghee and milk along with sali rice, drink alcohol in little quantity or should not drink at all and even if one drinks, he should drink along with plenty of water.	Diets which are salty, sour, pungent or hot.
Varsha	Use of honey in preparing diets, drinks and others, diets which are conspicuously sour, salty and unctuous, old barley, wheat and sali rice, along with the meat of arid animals and vegetable soup, drink madhvika or arishta type of liquor, pure rain water or water from the well or pond – boiled and cooled, mixed with little honey.	Udamantha and water from the river
Sharad	sweet, light, cold and bitter foods and drinks, the meats of lava (common quail), kapinjala (Grey partridge), eÆa (antelope), urabhra (sheep), sarbha (wapiti), and sasa (rabbit), rice, barley and wheat, ghee prepared with bitter medicines, hamsodaka	fat, oil and meat of aquatic and marshy animals, alkaline salt preparation and curd

## CONCLUSION-

Our lifestyle is indicative of the behavioral patterns we adopt to live our lives. This translates to the way we eat, drink, and exercise and are predisposed to taking care of our health. Unhealthy habits will show up in the form of lifestyle diseases in the long run. Since these habits are acquired over a long period of time, it

takes that long to change as well. However, persuasion and persistence of health care professionals can go a long way in making to adopt healthier ways of living. Ideally, we should not wait to fall sick before we make changes in these patterns. We should live a healthy life, where we eat a balanced diet, exercise and stay fit, and avoid habits that are injurious to health, so that we do not have to bear the unnecessary consequences that develop in the form of lifestyle diseases.

#### REFERENCES –

- <sup>1</sup> Susruta, Susruta Samhita, Shastri Ambikadatta, editors, Chaukhamba Sanskrit Sansthan, Varanasi 2005, Sutra Sthana- 1/15
- <sup>2</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, sutrasthan, Varanasi, chaukhamba bharti academy.2009,P. 587
- <sup>3</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, Sutrasthan, Varanasi, chaukhamba bharti academy.2009,P. 227
- <sup>4</sup> Training course report on management of life style disorders – NIHFw, Delhi <http://www.nihfw.org/pdf/Training%20Course%20Report-LIFESTYLE%20DISORDERS.pdf>
- <sup>5</sup> Article in [http://www.indianmba.com/Faculty\\_Column/FC1049/fc1049.html](http://www.indianmba.com/Faculty_Column/FC1049/fc1049.html) by Ms jhila rudra de.
- <sup>6</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, Sutrasthan, Varanasi, chaukhamba bharti academy.P.105
- <sup>7</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, sutrasthan, Varanasi, chaukhamba bharti academy.P. 680-682
- <sup>8</sup> Sastri lakshmi pati, edited by sastri brahmashankar, Yogaratanakara, Chaukhambha Sanskrit, sansthan, Varanasi, 2002,3/222
- <sup>9</sup> Susruta, Susruta Samhita, Shastri Ambikadatta, editors, Chaukhamba Sanskrit Sansthan, Varanasi, 2011, Uttarantra, P. 618-622
- <sup>10</sup> Vagbhatta, Astangahridayam, Vidyotini, Gupta kaviraja atrideva, edited upadhyaya yadunandana, Chaukhambha prakashan, Varanasi 2012, P. 102-104
- <sup>11</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, Sutrasthan, Varanasi, chaukhamba bharti academy.P. 106
- <sup>12</sup> Gupta LP, Guru LV, Positive health through Ayurveda, Chaukhamba Sanskrit pratishthan, Delhi, 2000 P.27
- <sup>13</sup> <http://en.wikipedia.org/wiki/Barley>
- <sup>14</sup> <http://whfoods.org/genpage.php?tname=foodspice&dbid=127>
- <sup>15</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, Sutrasthan, Varanasi, chaukhamba bharti academy.P. 106
- <sup>16</sup> Agnivesha, Charak Samhita, Vidyotini, Sastri k, Chaturvedi G, editors, Sutrasthan, Varanasi, chaukhamba bharti academy.P. 140-146